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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,772	03/24/2004	James Grassi	2004-044	2771

32170 7590 08/29/2005

U.S. ARMY TACOM-ARDEC

ATTN: AMSTRA-AR-GCL

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PICATINNY ARSENAL, NJ 07806-5000

EXAMINER

JOHNSON, STEPHEN

ART UNIT

PAPER NUMBER

3641

DATE MAILED: 08/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/708,772	Applicant(s) GRASSI, JAMES	
	Examiner Stephen M. Johnson	Art Unit 3641	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "low velocity" in claims 1-19 is a relative term which renders the claim indefinite. The term "low velocity" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term low velocity does not disclose what velocities of the air burst munition would be included or excluded by such terminology.

In claim 3, the phrase "the external electrical contacts" lacks an antecedent. In claim 4, the phrase "the chamber contacts" lacks an antecedent. In claim 17, use of the phrase "commercially available" makes the claim indefinite because what is or is not commercially available varies dependent upon both time and location of the desired product (batteries).

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "electronic range finding device" (claim 11) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure

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must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurschner et al..

Kurschner et al. disclose a system for implementing air burst munitions comprising:

- |  |   |
|--|---|
| a) a fuze;   | 16  |
| b) a fuze setter;  | 32  |
| c) setting a range;  | col. 6, lines 23-28                               |
| d) calculating a flight time;                                | 44, 62; col. 7, lines 56-57                       |
| e) a ballistic characteristic used to determine flight time; | col. 7, lines 48-65;<br>see boxes 54, 64 (fig. 7) |
| f) air burst mode;   | col. 7, lines 24-27                               |

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g) triggering upon impact; and

col. 7, lines 24-27

h) setting by magnetic induction.

col. 6, lines 23-26

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurschner et al. in view of Kaiser et al..

Kurschner et al. apply as previously recited. However, undisclosed is means for transmitting information from the fuse to the fuse setter that is a plurality of chamber contacts with associated data communication cable. Kaiser et al. teach a means for transmitting information from the fuse to the fuse setter that is a plurality of chamber contacts with associated data communication cable (see figs. 1 and 2a; col. 2, lines 38-56). Applicant is substituting one type of means for transmitting information from the fuse setter to the fuse for another in an analogous art setting. It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Kaiser et al. to the Kurschner et al. air burst system and have an air burst system with a different type of means for transmitting data from the fuse setter to the fuse.

7. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurschner et al. in view of Desai et al. or Moore.

Kurschner et al. apply as previously recited. However, undisclosed is a means for

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displaying range that can be viewed at day or night. Desai et al. (col. 4, lines 1-5) and Moore (col. 13, lines 52-56) each teach a means for displaying range that can be viewed at day or night. Applicant is substituting one means for displaying range data for another in an analogous art setting. It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Desai et al. or Moore to the Kurschner et al. air burst system and have an air burst system with a particular type of range display means.

8. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurschner et al. in view of Smith et al..

Kurschner et al. apply as previously recited. However, undisclosed is a manual range entry means. Smith et al. teach a manual range entry means (col. 2, lines 21-52). Applicant is selecting a means commonly known in this art for range entry and putting it to use as it is already commonly known to be used in this art. It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Smith et al. to the Kurschner et al. air burst system and have an air burst system with a manual range entry means.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kurschner et al. in view of Hall et al..

Kurschner et al. apply as previously recited. However, undisclosed is a power source that is a commercially available battery. Hall et al. teach a power source that is a commercially available battery 22. Applicant is substituting one power source for another in an analogous art setting. It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Hall et al. to the Kurschner et al. air burst system and have an air burst system with a particular type of power source.

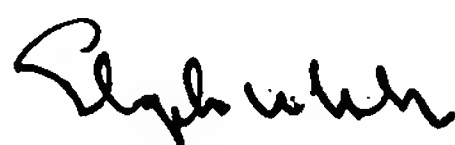
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10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ziemba, Ziemba et al., Schlegel et al., Schuster et al., and Bock disclose state of the art fuse arrangements.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Johnson whose telephone number is 571-272-6877. The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The Central FAX phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 800-786-9199.



**STEPHEN M. JOHNSON**  
**PRIMARY EXAMINER**

Stephen M. Johnson  
Primary Examiner  
Art Unit 3641

SMJ

August 24, 2005